

**Notice of Allowability**

Application No.

10/073,682

Examiner

Micah-Paul Young

Applicant(s)

BROWN ET AL.

Art Unit

1618

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to interview on 9/29/05.
2. ☒ The allowed claim(s) is/are 1-22.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date 9/30/05.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 3/2/05
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

**THURMAN K. PAGE**  
SUPERVISORY/PATENT EXAMINER  
TECHNOLOGY CENTER

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Ernest V. Linek on 9/29/05.

The following changes to the drawings have been approved by the examiner and agreed upon by applicant: Applicant is required to file formal drawings commensurate with the scope of the instant application. In order to avoid abandonment of the application, applicant must make these above agreed upon drawing changes.

The application has been amended as follows:

1. An ultra-high molecular weight polyethylene film:  
having a tensile strength from between about 0.7 GPa and about 5 GPa where said polyethylene has an intrinsic viscosity from between about 5 and about 50 db/g; that is stretched, fibrillated and slit into a micromesh tape suitable for use as an interproximal device having:
  - a fibrillation density from between about 5% and about 90% of the total tape surface,
  - a width from between about 0.035 and about 0.12 inches,
  - a thickness from between about 0.001 and about 0.004 inches, and
  - a denier from between about 200 and about 600;wherein said micromesh interproximal device is coated with an oral care substance at from between about 10 and about 120 mg/yd and which, during flossing, releases substantial amounts of said coating while demonstrating ultra shred resistance and an entrapment factor of at least about two;  
and where said oral care substance is selected from the group consisting of hedonic agents, cleaners, chemotherapeutic agents, abrasives, and mixtures thereof.

Amend claim 5 as follows:

5. The coated ultra-high molecular weight polyethylene micromesh interproximal device according to Claim 1, wherein said oral care coating substance further comprises a composition [[is]] selected from the group consisting of: high melt viscosity mixtures, high melt viscosity emulsions, medium melt viscosity mixtures, medium melt viscosity emulsions, low melt viscosity mixtures and low melt viscosity emulsions, and combinations thereof.

Amend claim 7:

7. The coated ultra-high molecular weight polyethylene micromesh interproximal devices according to Claim 5, wherein said medium melt viscosity mixtures and medium melt viscosity emulsions are injection loaded into said micromesh at levels from between about 10 and about 120 mg/yd and said medium melt viscosity mixtures and emulsions comprise coatings selected from the group consisting of:

- (a) saliva soluble, substantially crystal-free coatings containing oral care substances selected from the group consisting of hedonic agents, cleaners, chemotherapeutic agents, abrasives, and mixtures thereof;
- (b) saliva gelling, slowly soluble mixtures containing oral care substances selected from the group consisting of hedonic agents, cleaners, chemotherapeutic agents, ~~Soft~~ Abrasives™ abrasives and mixtures thereof; and

mixtures of (a) and (b).

2. The following is an examiner's statement of reasons for allowance: The prior art though disclosing dental floss with a tensile strength within the limits of the claims, the device of Zachariades is a monofilament, and far too expensive to produce. The device of the instant claims is forms a micromesh tape, which is less expensive to produce and in contrast to the orderly nature of the monofilaments, or multi-filaments of the prior art, the micromesh of the instant claims is a randomly, net or web like assortment of material comprising interstitial spaces and openings. The micromesh tapes provide improved bio-film cleansing and delivery of active agent coatings since the micromesh releases its' coating easier than a mono- or multi-filament. For these reasons the claims of the instant invention are novel and non-obvious over the prior art.

3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

Art Unit: 1618

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Micah-Paul Young whose telephone number is 571-272-0608.

The examiner can normally be reached on M-F 7:00-4:30 every other Monday off.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman K. Page can be reached on 571-272-0602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



MP Young

Micah-Paul Young  
Examiner  
Art Unit 1618



THURMAN K. PAGE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1600